Electronic Version
Stylesheet Version v1.1.1

[SOURCE DRIVER AND LIQUID CRYSTAL DISPLAY USING THE SAME]

Abstract

A low-power-consumption source driver for a liquid crystal display is provided. Morethan one middle voltage level for the level shifter and the output buffer is provided, in addition to the power supply voltage level VDD and the ground level GND, to provide different voltage levels for image data of different polarities. Hence, amplitude of the operational voltage of the level shifters and the analog circuits with different polarities can be reduced. It also can reduce the amplitude of the operational voltage of the level shifter and can reduce significantly the dynamic power consumption of the level shifter and the DAC. Because the voltage amplitude of the circuit is reduced and a low-voltage tolerated device can be used, so that the present invention can further reduce the cost of the circuit.